It is respectfully submitted that James is completely silent as to a "midpoint coordinate generating means." Instead, as shown in Figure 2, James is directed to dividing a line into a plurality of equal segments whereby the centers of those segments are defined as the initial locations for the respective line generating pointers P used for plotting the segments (*see* col. 4, lines 5-18). Accordingly, as shown in Figure 2, center points 32 and 36 are midpoints only to their respective segments S1 and S3, respectively, and are NOT midpoints of line segments defined between the start/end points and point 34. Again, as mentioned above, the alleged midpoints of James are formed independently of each other using partitioned segments as a basis. James is completely silent as to providing a means for purposely generating the coordinates for interrelated midpoints.

In sum, James is not directed to generating a first midpoint of a ***line***, and second and third midpoints of the line ***segments*** connecting the start and end points of the line ***to the first midpoint***. In contrast, James is directed simply to generating starting points for line generating pointers P used to plot the line segments. Any starting points defined during the process disclosed by James is obtained only ***after*** the line is necessarily divided into plural line segments, and such points are defined by the number of segments and points (i.e., modulo therebetween as described, for example, at col. 7, lines 23-25 with respect to Figure 8) rather than a relation therebetween. James does not disclose generating midpoints at the beginning.

Turning to Figure 8 of James relied on by the Examiner in the pending rejection, it is respectfully submitted that point 84 is NOT a ***generated*** point used to draw the line.

Rather, only points 86 and 88 are part of line drawing process so as to create the starting points for line generating pointers P1, P2 and P3, P4, respectively. Point 84 is only illustrated as representative of the inherent center of the line, but is NOT generated as a point used in drawing the line. This is further evidenced by the fact that points 86 and 88 are both physically shown as dots on the line, whereas point 84 is NOT physically shown but merely serves as a ***visual indication of where the line generating pointers P2 and P3 overlap*** (represented by the facing arrow heads).

In fact, the embodiment of Figure 8 is specifically directed to the case where "there will be some overlapping of the pointers to the effect that one or more points along the line are plotted twice" (*see* col. 6, line 56 - col. 7, line 4). When special circumstances arise whereby the number of points in the line modulo the number of segments is non-zero, James discloses using points positioned at the ***first quarter 86 and third quarter 88*** of the line as the starting points for line generating pointers P1,P2 and P3,P4, respectively, resulting in "overhead" reaching maximum "cost" as illustrated in Figure 8 (*see* col. 7, lines 4-7). As noted at col. 7, lines 23-25, Figure 8 exemplifies the particular case where the number of points (=9) modulo the number of segment sections (=4) equals 1 so as to be non-zero.

James is silent as to obtaining the point 84 at the beginning. Point 84 simply ***identifies/represents*** the location at which the pointers P2 and P3 overlap. However, point 84 is not generated as a midpoint. None of the embodiments disclosed by James disclose or suggest a midpoint coordinate generating means for generating three ***related*** midpoints of a line to be drawn in the manner recited in claim 1. Instead, James

discloses first partitioning a line and then creating line generating pointers at equally positioned points along the partitioned line. James expressly discloses that those equally positioned points are centers of their respective segments (Figure 2) rather than related to each other in the manner recited in claim 1. In the case of Figure 8, only points 86 and 88 are used as starting positions for the line generating pointers in view of the non-zero modulo relationship as discussed above, in which a third point on the line does not even exist (as opposed to the three points of Figure 2 which are centered with respect to their own segments, rather than to each other in the manner recited in claim 1).

B. CLAIMS 5, 11 AND 13

It is respectfully submitted that James does not disclose each and every limitation recited in independent claims 5, 11 and 13. For example, with respect to claim 5, the alleged first and second data storage data storage means of James are not disclosed as operating in a "first in, first out basis." Furthermore, James does not disclose the specific relationships defined between the respective elements of claims 5, 11 and 13. For example, with respect to claim 5, James is completely silent as to inputting "coordinate data output from the first and second data storage means ... to the ***first*** data storage means" and "wherein the divided data is input from the divide-by-two means to the ***second*** storage means."

It appears the Examiner may have based the rejection of claims 5, 11 and 13 on the assumption that because the device of James allegedly discloses structure that CAN perform the recited function, that James allegedly MUST perform the interrelated

functions and processes in the exact manner recited in those claims. The Examiner therefore grouped claims 5, 11 and 13 into a single rejection. As such, the Examiner does not appear to have made any distinctions between the respective claims. Furthermore, the mere assertion that James discloses subtractors/adders, etc. (i.e., elements which may be ***individually*** similar to the claimed elements; *see* last line on page 2 of the outstanding Office Action) does NOT necessitate that such adders/subtractors are arranged in the device relative to other elements, both structurally and functionally, in the manner recited in the pending claims.

Absent express or inherent disclosure by James (noting that "inherency may not be established by probabilities or possibilities" (*see Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), it is respectfully submitted that James does not anticipate each and every structural, functional and method step recited in claims 5, 11 and 13. If the Examiner maintains the pending rejections, it is respectfully requested that the Examiner please identify, separately for each claim, how James MUST disclose each and every structure, and/or functional interrelationship between the structures, and/or processes, as recited in respective claims 5, 11 and 13. Upon Applicant's review, it appears that James is only remotely related to the present application to the extent a line is being drawn, but is otherwise unrelated to the precise manner of, and/or structure for, drawing lines recited in the respective claims.

As another example of a distinction between the present invention and James, each of claims 5, 11 and 13 define a "divide-by-two means." The Examiner asserts that James discloses "dividing the line to be drawn into equal length segments. See col. 3,

line 23 - col. 3, line 58" and presumably interprets this feature of James as equivalent to a "divide-by-two means." However, as mentioned above, James is completely silent as to midpoint coordinate generating means and therefore has no need for a "divide-by-two means" as recited in claims 5, 11 and 13. It is not understood how the Examiner is interpreting dividing a line segment into plural line segments as necessitating a "divide-by-two means." That is, dividing a line into plural segments can be easily performed without a divide-by-two means.

For example, as expressly described at col. 5, lines 12-50, James uses a one-quarter 46 and three-quarter point 48 of the line as the starting points for the line generating pointers in which the line segments are to be drawn, during which process a "divide-by-two means" is not necessary or even relevant. James is completely silent as to a "divide-by-two means", let alone a divide-by-two means "for dividing the added data" from the adding means (e.g., it is not clear which data is added in James, and it would appear that any addition is not related to ascertaining the starting points which are created during partitioning). Again, James is silent as to both the elements and the interrelationships between the respective elements as recited in claims 5, 11 and 13.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently, in a single prior art reference, Akzo N.V. v. U.S. Int'l Trade Commission, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that James does not anticipate claims 1, 5, 11 and 13, nor any claim dependent thereon.

Based on the foregoing, it is submitted that claims 1-13 are patentable over

James. Accordingly, it is respectfully requested that the rejection of claims 1-13 under 35 U.S.C. § 102 over James, be withdrawn.

NEW CLAIMS

New claims 14 and 15 are submitted to be allowable based on their own merits, in addition to being dependent on novel claim 1. James does not disclose or suggest a "midpoint generating means [which] generates the first midpoint before generating the second and third midpoints" as recited in claim 14. Instead, the alleged line midpoint ***indirectly*** defined by James as a visual indicator appears to be formed simultaneously when the line is partitioned, or formed after the respective midpoints are formed in succession during partitioning ***beginning from the start point*** to the end point.

Further, James does not disclose or suggest a "midpoint generating means [which] generates the second and third midpoints based on the coordinates for the first midpoint." Again, James is completely silent as to a midpoint coordinate generating means. The respective starting points for the line generating pointers are unrelated to each other so that any alleged second/third midpoint is NOT based on the coordinate of the first, but rather, is based on the sequence of partitioning the line (modulo, etc.) into the specified number of segments.

CONCLUSION

Having fully and completely responded to the Office Action, Applicant submits that all of the claims are now in condition for allowance, an indication of which is

respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicant's attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

New Claims 14 and 15 have been added as follows:

--14. (New) The apparatus of Claim 1, wherein the midpoint coordinate generating means generates the first midpoint before generating the second and third midpoints.

15. (New) The apparatus of Claim 1, wherein the midpoint coordinate generating means generates the second and third midpoints based on the coordinates for the first midpoint.--